

REMARKS

The indication by the Examiner in the Office Action dated August 29, 2000 that claims 14-16 and 24-26 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims, is acknowledged with appreciation.

As noted in the prior amendment, in order to minimize additional fees that would be due based on an added number of independent claims (in the case where the objected claims were rewritten in independent form) claims 14-16 and 24-26 have not been rewritten in independent form at this time because the rejection of claims 13 and 23 (from which they depend) have been traversed by the present response.

The comments by the Examiner in the Office Action dated August 29, 2000 to clarify the perceived differences between the present invention as argued and the claims as presented is noted with appreciation. Furthermore, the Examiner's suggestions for language which may render the claims allowable is also noted with appreciation.

A. Application Summary

Claims 4-6, 13-16 and 23-30 are pending in the present Application. Because a CPA has been filed, there is no outstanding office action and thus there are no outstanding rejections of the pending claims. However, for the convenience of the Examiner, each of the rejections made in the Office Action dated August 29, 2000 are addressed below.

The status of the claims at the time of the Office Action dated August 29, 2000 is as follows:

Claims 14-16 and 24-26 were objected to as being dependent upon a rejected base claim but were indicated as being allowable if rewritten in independent form;

Claims 4-6, 13, 28, and 29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Oshita, U.S. Patent 5,343,306;

Claims 4, 5, 13, 27, and 28 were rejected under 35 U.S.C. § 102(e) as being anticipated by Yoshida et al, U.S. Patent 5,930,006;

Claim 23 was rejected under 35 U.S.C. § 103(a) as being obvious over Collard et al., U.S. Patent 5,825,988, in view of Yoshida et al., U.S. Patent 5,930,006.

By this Amendment, each of the independent claims (i.e., claims 4, 13, 23, and 28) have been amended to clarify that the state decision controller determines the state for each frame and the selection prohibiting controller compares the state between at least two frames. Also, by this Amendment, new claims 31-35 have been added in order to provide a more adequate basis of protection for the present invention.

B. Section 102 Rejections

(i) Claims 4-6, 13, 28, and 29 over Oshita

The rejection of claims 4-6, 13 and 28-29 under 35 U.S.C. § 102(b) as having been anticipated by Oshita, U.S. Patent 5,343,306, is respectfully traversed based on the following.

As noted above, each of the independent claims (i.e., claims 4, 13, 23, and 28) have been amended by the present amendment to clarify that the state decision controller determines the state for each frame and the selection prohibiting controller compares the state between at least two frames.

Thus, based on this amendment, any departure between applicant's arguments presented in conjunction with the response to the Examiner's March 13, 2000 Office Action, and the claims should now be obviated.

For the sake of completeness, the argument previously presented is substantially repeated below.

As noted in the present specification, the present invention is intended to provide a user-friendly image processing device wherein, when a mode of operation is not possible based on the characteristics of the frames of the images to be processed, the user will not select a non-operable mode. This aspect of the invention can be seen in the following discussion of the various claims.

Claim 4 is independent and claim 5 depends therefrom. The rejection of claim 4 will be addressed first. Claim 4, as amended, recites:

An image processing device operable in a plurality of modes of operation, comprising:

a memory for storing image data of a plurality of frames;

a state decision controller for determining, for each frame, a state of a frame of said image data stored in said memory;

an operation panel for selecting any of said plurality of modes of operation; and

a selection prohibiting controller for comparing the state between at least two frames, as determined by the state decision controller, and for automatically prohibiting selecting an inoperable mode of operation of said plurality of modes of operation through said operation panel based on the result of said comparison.

[Emphasis added]

Thus, claim 4, as amended, recites that the state decision controller determines, for each frame, the state of the frame associated with the image data and then a comparison is made between at least two frames so that, as a result of the comparison, an inoperable mode is automatically prohibited.

Oshita, in contrast to the present invention, discloses a facsimile machine which monitors the length of each page of a received document and which:

When the document page is found to be longer than the currently-loaded cut sheet (ST2), the controller 10 inhibits the commencement of the printing of ***the particular document page***, and enters the memory reception mode of operation (ST5).

Oshita, Column 5, lines 64-68 [Emphasis added]

Thus, Oshita discloses a system which will print each page of a received document until a page to be printed is found to exceed the currently-loaded sheet length. When this occurs, the machine stops printing and stores any subsequently received pages in memory. Thus, Oshita compares each page (as it is about to be printed) to the currently-loaded sheet length.

In contrast to the present invention, Oshita does not make a comparison between the length of a page to the iengin of another page(s) in the document, much less control a mode of operation which is applicable to the entire multi-page document based on a result of such comparison.

Absent a disclosure of a system which determines the state of two frames of image data, compares the determined states, and prohibits a mode based on the result of the comparison, applicant respectfully submits that Oshita cannot anticipate the invention of claim 4.

Claims 5 and 6 depend from claim 4. As claim 4 is considered to be novel over the cited reference for the above described reasons, claims 5 and 6 which depend therefrom are also considered to be novel for at least the same reasons.

Claim 13, like claim 4, includes the limitations of a state decision controller for determining, for each frame, a state of a frame of the image data stored in the memory and a selection prohibiting controller for comparing the state between at least two frames and, based on the result of that comparison, for automatically prohibiting selection of an inoperable print mode of said plurality of print modes.

Accordingly, because Oshita does not disclose comparing a determined state of one frame to a determined state of another frame, and controlling an operation based on a result of that comparison (as outlined above with respect to claim 4), applicant respectfully submits that Oshita cannot anticipate the invention of claim 13.

Claim 28, very much like claims 4 and 13, includes the limitations of a state decision controller for determining, for each frame, a state of a frame of the image data stored in the memory and a selection prohibiting controller for comparing the state between at least two frames and for determining an inoperable mode of operation based on the result of the comparison.

Because Oshita does not disclose performing a comparison between a determined state of one frame and the determined state of another frame, and controlling an

operation based on a result of that comparison (as outlined above with respect to claim 4), applicant respectfully submits that Oshita cannot anticipate the invention of claim 28.

Claims 29 and 30 depend from claim 28. As claim 28 is considered to be novel over the cited reference for the above described reasons, claims 29 and 30 which depend therefrom are also considered to be novel for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claims 4-6, 13, 28, and 29 under 35 U.S.C. § 102(b) as having been anticipated by Oshita, U.S. Patent 5,343,306, be reconsidered.

(ii) Claims 4, 5, 13, 27, and 28 over Yoshida

The rejection of claims 4, 5, 13, 27, and 28 under 35 U.S.C. § 102(e) as having been anticipated by Yoshida et al, U.S. Patent 5,930,006, is respectfully traversed based on the following.

As noted above, claim 4, as amended, recites:

An image processing device operable in a plurality of modes of operation, comprising:

a memory for storing image data of a plurality of frames;
style="padding-left: 40px; margin-left: 20px;">a state decision controller **for determining**, for each frame, **a state of a frame** of said image data stored in said memory;
style="padding-left: 40px; margin-left: 20px;">an operation panel for selecting any of said plurality of modes of operation; and
style="padding-left: 40px; margin-left: 20px;">a selection prohibiting controller **for comparing the state between at least two frames**, as determined by the state decision controller, and **for automatically prohibiting selecting an inoperable mode of operation of said plurality of modes of operation through said operation panel based on the result of said comparison**.

[Emphasis added]

Thus, claim 4, as amended, now makes clear that the state decision controller determines a “**state of a frame**” of the image data. For instance, as can be seen in the present specification, a “state of a frame” can be a frame size, or a frame length, etc. (present specification page 6, lines 3-8 and page 7, lines 3-4.) Once the state of each of the frames has been determined, a comparison is made between the states of at least two

frames and the result used to automatically prohibit selection of an inoperable mode of operation.

Yoshida discloses a system which includes processing for judging the size of characters in an original document which is stored in memory. (Column 15, lines 39-46). Yoshida provides:

Then, the lowest (or the narrowest) of the detected character sizes or the detected heights (or widths) of the individual lines, namely **the size of the smallest number of pixels in the direction of height (width), is adopted as the character size L of the original document (S305)**. As a result, the character size in the original document is judged.

Now, the processing for judging the Nin1 which decides the question of whether or not the output can be attained by the Nin1 mode which is set based on the set character size L will be described below (the step S105 in FIG. 21).

Yoshida Column 16, lines 4-13. [Emphasis added]

Thus, Yoshida discloses a system where the various lines in the document are scanned and the smallest of the detected character sizes is adopted as a basis for controlling the N in 1 reproduction mode. Namely, depending on the size of the smallest font, the number of pages (N) which will be permitted on one output page (i.e., N in 1) is controlled.

In contrast to the present invention, Yoshida does not determine the “state of a frame” of the image data, much less make a comparison **between** the state of a first frame of image data and the state of at least one other frame of image data. Instead, Yoshida merely determines the font size of characters on each page and ascertains the smallest font size used. As noted above, the “state of a frame” in the present invention can be a frame size, or a frame length, etc., but it is not the same as a size of a font on a page.

Because Yoshida does not determine, for each frame, the state of a frame of the image data, and does not make a comparison between the determined state of a frame and the determined state of at least one other frame of image data, Yoshida cannot anticipate the invention of claim 4.

As discussed above in regard to the section 102 rejection over Oshita, independent claims 13 and 28 include substantially the same limitation of claim 4 that the apparatus determines the state of a frame associated with the image data and then a comparison is made between at least two frames so that, as a result of the comparison, an inoperable mode indicated or automatically prohibited.

Because Yoshida does not determine, for each frame, the state of a frame of the image data, and does not make a comparison between the determined state of a frame and the determined state of at least one other frame of image data, Yoshida thus cannot anticipate the invention of independent claims 13 and 28.

Rejected claims 5 and 27 depend from claim 4. Because claim 4 is considered to be novel over Yoshida, claims 5 and 27 are also considered to be novel for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claims 4, 5, 13, 27, and 28 under 35 U.S.C. § 102(e) as having been anticipated by Yoshida et al, U.S. Patent 5,930,006, be reconsidered.

C. Section 103 Rejection

The rejection of claim 23 under 35 U.S.C. § 103(a) as having been obvious, to one of ordinary skill in the art at the time of the invention, from Collard et al, U.S. Patent 5,825,988, in view of Yoshida et al, U.S. Patent 5,930,006, is respectfully traversed for the reasons set forth below.

Claim 23, as amended, recites:

An image forming apparatus operable in a plurality of print modes, comprising:

a memory for storing a plurality of print jobs, each print job containing image data of at least two frames;

a print-job selector for selecting one of said plurality of print jobs stored in said memory;

a state decision controller for determining, for each frame, a state of a frame of said image data contained in said print job selected by said print-job selector;

a printer for printing said image data contained in said print job selected by said print job selector;
an operation panel for selecting any of said plurality of print modes; and
a selection prohibiting controller **for comparing the state between at least two frames**, as determined by the state decision controller, **and for automatically prohibiting selecting an inoperable print mode of said plurality of print modes through said operation panel based on the result of said comparison.**

[Emphasis added]

Thus, claim 23, as amended, includes limitations of a memory for storing a plurality of print jobs where each print job contains image data of at least two frames; a state decision controller for determining, for each frame, a state of a frame of the image data contained in the selected print job; and a selection prohibiting controller for automatically prohibiting selecting an inoperable print mode based on the result of a comparison between the states of at least two frames.

In order to render obvious the invention of claim 23, the cited references, singly or in combination, must disclose every feature of the claimed invention. As the following will show, Yoshida and Collard et al fail to disclose every feature of claim 23.

The acknowledgment in the rejection that Collard et al does not disclose a "controller automatically prohibiting selecting an inoperable print mode based on the thus determined state of the selected print job" is acknowledged with appreciation.

Collard et al also fails to disclose, suggest or teach determining a state of a frame for two frames of image data, performing a comparison between the states of the frames, and automatically prohibiting selecting an inoperable print mode based on the result of the comparison.

As Collard et al does not disclose either a controller for automatically prohibiting selecting a mode or making a comparison between the states of two frames corresponding to image data, Collard et al cannot, by itself, render obvious the invention of claim 23.

As discussed above, Yoshida does not determine the "state of a frame" of the image data, much less compare the state of a first frame of image data to the state of at least one other frame of image data. Instead, Yoshida merely determines the font size of characters on each page and ascertains the smallest font size used. As noted above, the "state of a frame" in the present invention can be a frame size, or a frame length, etc., but it is not the same as a size of a font on a page.

Because Yoshida does not determine, for each frame, the state of a frame of the image data, and does not make a comparison between the determined state of a frame and the determined state of at least one other frame of image data, Yoshida cannot overcome the deficiency of Collard et al to render obvious the invention of claim 23.

Accordingly, it is respectfully requested that the rejection of claim 23 under 35 U.S.C. § 103, as having been obvious, to one of ordinary skill in the art at the time of the invention, from Collard et al, U.S. Patent 5,825,988, in view of Yoshida et al, U.S. Patent 5,930,006, be reconsidered.

In view of the foregoing amendments and remarks, this Application is considered to be in condition for allowance and reconsideration and a notice of allowance is respectfully requested.

This Amendment does not result in any change to the total number of claims or to the number of independent claims, and does not present any multiple dependency claims. Accordingly, no fee based on the number or type of claims is incurred by this Amendment.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than issue fee, and not submitted

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

This following is a marked-up version of the changes to the claims which are being made in the attached Preliminary Amendment.

4. (Four Times Amended) An image processing device operable in a plurality of modes of operation, comprising:

- a memory for storing image data of a plurality of frames;
- a state decision controller for determining, for each frame, a state of a frame of said image data stored in said memory;
- an operation panel for selecting any of said plurality of modes of operation; and
- a selection prohibiting controller for comparing the state [of] between at least two frames, as determined by the state decision controller, and for automatically prohibiting selecting an inoperable mode of operation of said plurality of modes of operation through said operation panel based on the result of said comparison.

13. (Four Times Amended) An image forming apparatus operable in a plurality of print modes, comprising:

- a memory for storing image data of a plurality of frames;
- a printer for reading said image data stored in said memory for each frame and for printing;
- a state decision controller for determining, for each frame, a state of a frame of said image data stored in said memory;
- an operation panel for selecting any of said plurality of print modes; and
- a selection prohibiting controller for comparing the state [of] between at least two frames, as determined by the state decision controller, and for automatically prohibiting selection of an inoperable print mode of said plurality of print modes through said operation panel based on the result of said comparison.

23. (Four Times Amended) An image forming apparatus operable in a plurality of print modes, comprising:

a memory for storing a plurality of print jobs, each print job containing image data of at least two frames;

a print-job selector for selecting one of said plurality of print jobs stored in said memory;

a state decision controller for determining, for each frame, a state of a frame of said image data contained in said print job selected by said print-job selector;

a printer for printing said image data contained in said print job selected by said print-job selector;

an operation panel for selecting any of said plurality of print modes; and

a selection prohibiting controller for comparing the state [of] between at least two frames, as determined by the state decision controller, and for automatically prohibiting selecting an inoperable print mode of said plurality of print modes through said operation panel based on the result of said comparison.

28. (Three Times Amended) An image processing device operable in a plurality of modes of operation, comprising:

a memory for storing image data of a plurality of frames;

a state decision controller for determining, for each frame, a state of a frame of said image data stored in said memory;

a selection prohibiting controller, responsive to said state decision controller, for comparing the state [of] between at least two frames, as determined by the state decision controller, and for determining an inoperable mode of operation of said plurality of modes of operation based on the result of said comparison;

an operation panel, responsive to said selection prohibiting controller, for selecting any of said plurality of modes of operation, said operation panel automatically prohibiting selecting said thus determined inoperable mode of operation.

New claims 31-35 have been added.